

ABSTRACT

To provide a digital broadcasting apparatus able to suppress an increase of a dynamic range of signals by

5 controlling carrier phases of signals in digital terrestrial broadcasting in accordance with the frequencies of transmission channels. A frequency interleaving circuit frequency-interleaves main signals generated according to sound data by parameters set

10 according to frequencies of transmission channels, a sub-signal generating circuit generates sub-signals for transmission control including pilot signals, mapping circuits modulate the sub-signals by using pseudo-random sequences generated based on initial values of random

15 codes set according to frequencies of transmission channels, and the frequency-interleaved main signals and the sub-signals modulated by the mapping circuits are OFDM-modulated, converted to the frequencies of the transmission channels, then broadcast from an antenna, so

20 an increase of a dynamic range of transmission signals can be suppressed.